

CLAIMS

I claim:

1. Apparatus comprising:

an automated banking machine,

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wherein the machine includes a currency dispenser,

wherein the currency dispenser is operative to dispense currency
notes from the machine,

wherein the machine includes a magnetic stripe reader,

wherein the magnetic stripe reader is operative to read data from at
least one magnetic stripe of a user card,

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wherein the machine includes an RFID tag reader,

wherein the tag reader is operative to read data from at least one
RFID tag of a user card,

wherein the machine is operative to read data from a user card using at least one of the magnetic stripe reader and the RFID tag reader.

2. The apparatus according to claim 1 wherein the RFID tag reader is positioned adjacent to the magnetic stripe reader.

5 3. The apparatus according to claim 2 wherein the automated banking machine includes a user card insertion slot, wherein the magnetic stripe reader is operative to read data from a magnetic stripe of a user card inserted into the slot, and wherein the RFID tag reader is operative to read data from an RFID tag of a user card inserted into the slot.

10 4. The apparatus according to claim 1 wherein the machine includes at least one controller including at least one processor, wherein the at least one controller is in operative communication with both the magnetic stripe reader and the RFID tag reader.

5. The apparatus according to claim 4 wherein the at least one controller is operative to cause the magnetic stripe reader to read stripe data from a stripe on a card and tag data from an RFID tag on the card.

6. The apparatus according to claim 5 wherein the at least one controller is operative to determine if at least a portion of the stripe data and at least a portion of the tag data have a predetermined relationship.
- 5 7. The apparatus according to claim 6 wherein, responsive to determining the predetermined relationship, the at least one controller is operative to enable the machine to carry out at least one transaction function.
8. The apparatus according to claim 7 wherein the at least one transaction function includes dispensing currency notes from the machine through operation of the currency dispenser.
- 10 9. The apparatus according to claim 8 wherein the machine includes at least one user input device in operative connection with the at least one controller, and wherein the at least one user input device is operative to receive at least one user input corresponding to the card, and wherein the controller is operative to enable dispensing currency notes responsive to at least a portion of at least one of the stripe data and tag data corresponding to the at least one user input.
- 15 10. The apparatus according to claim 9 wherein the at least one user input device comprises at least one key, and the at least one user input comprises actuating at least one key.

11. The apparatus according to claim 10 wherein the at least one user input device comprises a keypad having a plurality of keys, and wherein the at least one user input comprises pressing at least one key of the keypad.

5 12. The apparatus according to claim 11 wherein the at least one user input comprises a PIN.

13. The apparatus according to claim 12 wherein the PIN corresponds to the stripe data.

14. The apparatus according to claim 9 wherein the at least one input device comprises a biometric input device.

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15. The apparatus according to claim 9 wherein the machine comprises at least one output device and wherein the at least one controller is operative to cause the machine to output at least one question through the at least one output device, and wherein the controller is operative to enable dispensing currency notes responsive to at least one answer input provided through the at least one input device responsive to the at least one question.

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16. The apparatus according to claim 15 wherein the controller is operative to determine if the answer input has a predetermined relationship to at least a portion of the tag data.

17. The apparatus according to claim 16 wherein the data includes data corresponding to a correct answer to the at least one question, and wherein the controller is operative to determine if the answer input corresponds to a correct answer.

5 18. The apparatus according to claim 16 wherein the at least one controller is operative to output a plurality of questions, and wherein the tag data includes data corresponding to correct answers to a plurality of questions.

10 19. The apparatus according to claim 18 wherein the at least one controller is operative to present the questions randomly.

20. The apparatus according to claim 16 wherein the at least one controller is operative to output the at least one question responsive to at least a portion of the tag data.

15 21. The apparatus according to claim 20 wherein the machine includes at least one RFID tag writer, and wherein the at least one controller is operative to cause the machine to output at least one additional question, and to receive at least one additional answer input through the at least one input device, and wherein the controller is operative to cause the tag writer to store data corresponding to the at least one additional answer in the tag data.

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22. The apparatus according to claim 21 wherein the at least one controller is operative to cause data corresponding to the at least one additional question to be stored in the tag data.
- 5 23. The apparatus according to claim 22 wherein the at least one question is output responsive to at least a portion of data stored in the tag data during a prior banking machine transaction session.
24. The apparatus according to claim 23 wherein the at least one controller is operative to output the at least one question responsive to at least a portion of the data stored in the tag data during other than an immediately preceding transaction session.
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25. The apparatus according to claim 21 wherein the at least one controller is operative to cause the tag writer to overwrite tag data.
- 15 26. The apparatus according to claim 24 when the tag data includes at least one of a digital signature and a digital certificate, and wherein the controller is operative to determine authenticity of at least one of a message and data through use of the at least one of the digital certificate and digital signature.

27. The apparatus according to claim 26 wherein the tag reader is operative to read a plurality of RFID tags on the card, and wherein the at least one controller is operative to enable dispensing currency responsive to the tag data read from the plurality of tags.
- 5 28. The apparatus according to claim 27 wherein the machine further includes an RFID document reader, and where the at least one controller is operative to cause the document reader to read document data on RFID tags included on documents that are at least one of placed in or dispensed from the machine.
- 10 29. The apparatus according to claim 28 wherein the document reader is operative to read document data on checks placed in the machine.
30. The apparatus according to claim 28 wherein the document reader is operative to read document data on currency placed in the machine.
31. The apparatus according to claim 28 wherein the document reader is operative to read document data on currency dispensed from the machine.
- 15 32. The apparatus according to claim 28 wherein the machine further includes an RFID document writer, and wherein the at least one controller is operative to cause the

document writer to change document data on RFID tags included on documents that are at least one of placed in and dispensed from the machine.

33. The apparatus according to claim 32 wherein the document writer is operative to change document data on checks placed in the machine.

5 34. The apparatus according to claim 32 wherein the document writer is operative to change document data on currency placed in the machine.

35. The apparatus according to claim 32 wherein the document writer is operative to change document data on currency dispensed from the machine.

10 36. The apparatus according to claim 28 wherein the machine comprises a housing wherein at least one of the tag reader, document reader, and document writer are positioned within the housing, and wherein the housing comprises radio frequency signal blocking material.

37. The apparatus according to claim 36 and further comprising at least one intrusion sensor adapted to sense unauthorized RFID sensors adjacent the housing, wherein the at least
15 one intrusion sensor is in operative connection with the at least one controller, and wherein the at least one controller is operative to cause the machine to take at least one action responsive to a sensing by the at least one intrusion sensor.

38. The apparatus according to claim 32 and wherein the controller is operative to communicate wirelessly through radio frequency messages in the housing with at least one of the tag reader, magnetic stripe reader, document reader, and document writer.

39. The apparatus according to claim 38 and further including a user card having at least one of an RFID tag and a magnetic stripe.

40. The apparatus according to claim 1 and further comprising a card, and wherein the at least one RFID tag is releasably attached to the card.

41. The apparatus according to claim 39 and wherein the user card includes a card RFID tag, wherein the card RFID tag includes tag data corresponding to at least one of user bank account information and a user input.

42. The apparatus according to claim 1 wherein the machine includes at least one controller including at least one processor, and wherein the at least one controller is operative to cause the magnetic stripe reader and the RFID tag reader to respectively read stripe data from the stripe and tag data from the tag.

43. The apparatus according to claim 42 wherein the machine includes at least one user input device in operative connection with the at least one controller, wherein the at least one

user input device is operative to receive at least one user input corresponding to the card, and wherein the controller is operative to enable dispensing currency responsive to at least a portion of at least one of the stripe data and tag data corresponding to the at least one user input.

- 5 44. The apparatus according to claim 43 wherein the at least one user input device comprises at least one key, and the at least one user input comprises actuating at least one key.
45. The apparatus according to claim 42 wherein the machine comprises at least one output device, and wherein the at least one controller is operative to cause the machine to output at least one question through the at least one output device, and wherein the controller is
10 operative to enable dispensing currency responsive to at least one answer input provided through the at least one input device responsive to the at least one question.
46. The apparatus according to claim 45 wherein the at least one controller is operative to determine if the answer input has a predetermined relationship to at least a portion of the tag data.
- 15 47. The apparatus according to claim 46 wherein the at least one controller is operative to output a plurality of questions, and wherein the tag data includes data corresponding to correct answers to a plurality of questions.

48. The apparatus according to claim 45 wherein the at least one controller is operative to present the questions randomly.
- 5 49. The apparatus according to claim 45 wherein the at least one controller is operative to output the at least one question responsive to at least a portion of the tag data.
- 10 50. The apparatus according to claim 49 wherein the machine includes at least one RFID tag writer, and wherein the at least one controller is operative to cause the machine to output at least one additional question and to cause the machine to receive at least one additional answer input through the at least one input device, and wherein the controller is operative to cause the tag writer to store data corresponding to the at least one additional answer in the tag data.
- 15 51. The apparatus according to claim 50 wherein the at least one controller is operative to cause data corresponding to the at least one additional question to be stored in the tag data.
- 20 52. The apparatus according to claim 51 wherein the at least one question is output responsive to at least a portion of data stored in the tag data during a prior banking machine transaction session.

53. The apparatus according to claim 42 when the tag data includes at least one of a digital signature and a digital certificate, and wherein the controller is operative to determine authenticity of at least one of a message and data through use of the at least one of the digital certificate and digital signature.

5 54. The apparatus according to claim 42 wherein the controller is operative to cause the tag reader to read tag data from a plurality of RFID tags on a user card, and wherein the controller is operative to enable the operation of the currency dispenser to dispense currency notes responsive to the tag data read from the plurality of tags.

10 55. The apparatus according to claim 42 wherein the machine further includes an RFID document reader, and where the at least one controller is operative to cause the document reader to read document data on RFID tags included on documents that are at least one of placed in and dispensed from the machine.

15 56. The apparatus according to claim 42 wherein the machine further includes an RFID document writer, and wherein the at least one controller is operative to cause the document writer to change document data on RFID tags included on documents that are at least one of placed in and dispensed from the machine.

57. The apparatus according to claim 42 and further comprising at least one intrusion sensor adapted to sense unauthorized RFID sensors adjacent the housing, wherein the at least one intrusion sensor is in operative connection with the at least one controller, and wherein the at least one controller is operative to cause the machine to take at least one action responsive to a sensing by the at least one intrusion sensor.

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